

REMARKS

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Claims 1, 4, 5 and 10 are amended. Claims 1-13 are pending.

Entry of Amendment under 37 C.F.R. § 1.116

The Applicant requests entry of this Rule 116 Response because: the amendments were not earlier presented because the Applicant believed in good faith that the cited references did not disclose the present invention as previously claimed; and the amendment does not significantly alter the scope of the claim and places the application at least into a better form for purposes of appeal.

The Manual of Patent Examining Procedures (M.P.E.P.) sets forth in Section 714.12 that “any amendment that would place the case either in condition for allowance or in better form for appeal may be entered.” Moreover, Section 714.13 sets forth that “the Proposed Amendment should be given sufficient consideration to determine whether the claims are in condition for allowance and/or whether the issues on appeal are simplified.” The M.P.E.P. further articulates that the reason for any non-entry should be explained expressly in the Advisory Action.

I. Rejection under 35 U.S.C. § 112

In the Office Action, at page 2, numbered paragraph 4, claims 1-12 were rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Claims 1, 4, 5, and 10 are amended in light of the Examiner’s comments, and accordingly, withdrawal of the § 112, first paragraph rejection is respectfully requested.

II. Rejection under 35 U.S.C. § 103

In the Office Action, at page 3, numbered paragraph 6, claims 1, 3-7 and 9-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,114,028 to Green et al. in view of U.S. Patent No. 6,876,615 to Shishido. This rejection is respectfully traversed because the combination of the teachings of Green and Shishido does not suggest:

determining whether the optical disc is formatted and recording data on the optical disc upon determining that the optical disc is not formatted;...

erasing, after the checking and after recording the data, data ranging from a next writable address to a predetermined block

upon determining that the optical disc is a Minimal Blank disc in which data is erased from the recording management area to a lead-in area; and

recording a remainder of the data other than the recorded data, after the erasing,

as recited in amended independent claim 1.

Green discusses that in response to a user attempting to write to unformatted media, the unformatted media is formatted prior to performing the write operation. Green further discusses examining the media to determine the type of media and the state of the media. Green discusses that the state of the media can influence the format type selected for the media (for example, a previously formatted CD-RW can be formatted using a quick format or a full format).

Thus, Green discloses that unformatted media is automatically formatted. In contrast, in the present invention of claim 1, for example, data is recorded on a DVD-RW medium that has been erased.

The present invention of claim 1, for example, is concerned with unformatted media. Green, however, discusses formatting media prior to performing a write operation. Green discusses only determining whether a quick format, a full format or another type of format is to be utilized, depending on the type of media and the state of the media (i.e., a previously formatted CD-RW). While Green does discuss determining whether the optical disc is formatted, Green does not specifically discuss recording data on the disc upon determining that the optical disc is not formatted. Green discusses particularly formatting media prior to performing a write operation, and thus does not suggest that data is recorded on media upon determining that the disc is not formatted, specifically as Green requires that the media be formatted before performing a write operation.

Further, as conceded by the Examiner, Green does not discuss or suggest recording data on the optical disc upon determining that the optical disc is not formatted, erasing after the checking the state of the disc and after partially recording the data, data ranging from a next writable address to a predetermined block upon determining that the optical disc is a Minimal Blank disc in which data is erased from the recording management area to a lead-in area, and recording a remainder of the data other than the partially recorded data after the erasing. The Examiner indicates that Shishido makes up for the deficiencies in Green. The Applicants respectfully disagree.

Shishido discusses an optical disc apparatus 30 that has a blank function for erasing data over the entire surface of the optical disc 1 and a minimally blank function for pseudo-erasing data by erasing only the contents information of the logical track 16 having data of the optical disc 1 recorded. Shishido discusses that if a data pseudo-erasing is requested for pseudo-erasing the data recorded in the program area 12, then the optical disc apparatus 30 erases the data recorded in the PMA 15, the data recorded in the read-in area 11 and the read-out area 13 of the data recording region 10, and the data recorded in the pre-gap 17 of the logical track 16 on the optical disk 1. Shishido further discusses that after the pseudo-erasing, only the contents information of the logical track 16 containing data recorded is erased with the actual data remains recorded on the logical track 16. Then, if a data write by packet write is requested, the pre-gap 17 of the logical track 16 is referenced to retrieve a new data writable position (NWA), and in the logical track 16 where the data has been pseudo-erased (minimally blanked), new data is recorded on a packet basis.

However, while Shishido discusses pseudo-erasing data (i.e., minimally blanking data) when it is recorded again and data is newly recorded, Shishido does not disclose such DVD-RW formatting as set forth in claim 1. Shishida is related to packets – small amounts of data recorded on formatted media.

Shishida does not discuss or suggest that prior to erasing data, recording data on the optical disc upon determining that the optical disc is not formatted. The portions of Shishido cited by the Examiner only discuss erasing data with a minimally blank function. The cited portions of Shishido do not suggest that data is recorded before other data is erased.

Further, Shishido does not discuss or suggest erasing data ranging from a next writable address to a predetermined block after checking the state of the optical disc and after recording data on the optical disc when the disc is not formatted. The data in Shishida is recorded on formatted media. In addition, Shishido does not discuss or suggest, particularly at the cited sections, recording a remainder of the data other than the recorded data, after the erasing. Shishido does not distinguish between recording data and then recording a remainder of data and does not suggest that a remainder of data that was recorded is recorded after erasing data ranging from a next writable address to a predetermined block, specifically after checking the state of the optical disc.

Further, while the motivation cited explains why one of ordinary skill in the art would utilize the invention of Shishido, the motivation does not explain how one of ordinary skill in the art would have been led to incorporate the pseudo-erasing of Shishido with the format type

determining and state of media determining of Green. In addition, the motivation cited does not suggest why one of ordinary skill in the art would have been led to combine Green and Shishido particularly to determine that a DVD-RW medium is unformatted, to check the state of the unformatted DVD-RW medium, and to then record data on the unformatted DVD-RW medium, as disclosed in independent claim 1, for example. The present invention provides an incremental recording mode in which data can be partially recorded and data is recorded on a minimal blank disc in which data is erased from a recording management data to a lead-in area, thereby providing user convenience, and sequentially managing the data, which would not have been obvious even in view of the combination of Green and Shishido.

Therefore, as the combination of the teachings of Green and Shishido does not discuss or suggest "determining whether the optical disc is formatted and recording data on the optical disc upon determining that the optical disc is not formatted;...erasing, after the checking and after recording the data, data ranging from a next writable address to a predetermined block upon determining that the optical disc is a Minimal Blank disc in which data is erased from the recording management area to a lead-in area; and recording a remainder of the data other than the recorded data, after the erasing," as recited in amended independent claim 1, and as the motivation cited is inadequate to suggest combining the teachings of Green and Shishido, claim 1 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Further, the combination of the teachings of Green and Shishido does not discuss or suggest "determining whether or not the optical disc is formatted and recording data on the optical disc upon determining that the optical disc is not formatted;...erasing, after the checking and after recording the data, data ranging from a next writable address to a predetermined block upon determining that the optical disc is a Minimal Blank disc in which data is erased from the recording management area to a lead-in area; and recording a remainder of the data other than the recorded data, after the erasing," as recited in amended independent claim 4, and the motivation cited is inadequate to suggest combining the teachings of Green and Shishido. Therefore, claim 4 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Also, the combination of the teachings of Green and Shishido does not discuss or suggest "recording data to the optical disc at a desired position upon determining that the optical disc is not formatted;...erasing, after the checking, data from a portion of the optical disc that may lead to a recording or read out error upon determining that the optical disc is Minimally

Blanked; and recording remaining data other than the recorded data at the desired address on the optical disc after the erasing,” as recited in amended independent claim 5, and the motivation cited is inadequate to suggest combining the teachings of Green and Shishido. Therefore, claim 5 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

The combination of the teachings of Green and Shishido additionally does not discuss or suggest “a data eraser/recorder that, in response to a signal, partially records first data to a desired portion of the optical disc or erases data from a portion of the optical disc that may lead to a recording or read out error;... wherein, after the data eraser/recorder partially records the first data to the optical disc, the controller outputs a signal to the data eraser/recorder to erase second data from a portion of the optical disc that may lead to a recording or read out error upon determining that the disc is minimally blanked, and outputs a signal to the data eraser/recorder to record a remaining portion of the first data if upon determining that the disc is fully blanked or if after the second data is erased,” as recited in amended independent claim 10, and the motivation cited is inadequate to suggest combining the teachings of Green and Shishido. Therefore, claim 10 patentably distinguishes over the references relied upon. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

Claims 3, 6, 7, 9 and 11 depend either directly or indirectly from independent claims 1, 5 and 10 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the references relied upon. For example, claim 9 recites “recording, after the checking, data from a next address upon determining that the optical disc is Minimally Blanked.” Therefore, claims 3, 6, 7, 9 and 11 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

In the Office Action, at page 8, numbered paragraph 7, claims 2, 8 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Green and Shishido and further in view of U.S. Patent No. 7,106,665 to Lee. This rejection is respectfully traversed.

As discussed above, the combination of the teachings of Green and Shishido does not suggest all the features of independent claims 1, 5 and 10. Lee fails to make up for the deficiencies in Green and Shishido. In particular, Lee discusses an apparatus and method for updating and recording data of an optical disc, but Lee does not make up for the deficiencies in Green and Shishido, and the combination of the teachings of Green, Shishido and Lee would not disclose all the features of independent claims 1, 5 and 10.

Therefore, claims 1, 5 and 10 patentably distinguish over the references relied upon.

Claims 2, 8 and 12 depend either directly or indirectly from independent claims 1, 5 and 10 and include all the features of their respective independent claims, plus additional features that are not discussed or suggested by the references relied upon. For example, claim 2 recites that "the determining further comprises outputting a recording error message upon determining that the optical disc is formatted." Therefore, claims 2, 8 and 12 patentably distinguish over the references relied upon for at least the reasons noted above. Accordingly, withdrawal of the §103(a) rejection is respectfully requested.

III. Allowable Subject Matter

Applicants are appreciative of the indication that claim 13 has been allowed.

Conclusion

In accordance with the foregoing, claims 1, 4, 5 and 10 have been amended. Claims 1-13 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

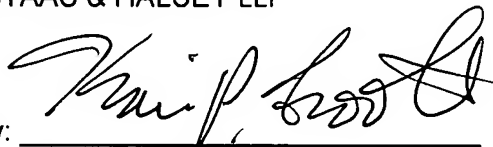
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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